

GenCore version 5.1.3  
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OM nucleic - nucleic search, using sw model

Run on: October 12, 2002, 13:02:35 : Search time 180 Seconds  
(without alignments)  
3719.981 Million cell updates/sec

Title: US-09-818-954A-2

Perfect score: 390  
Sequence: 1 atgaagctgcatctctt.....ccacgagtgtagaccatc 390

Scoring table:  
IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 1736436 seqs, 858457221 residues

Total number of hits satisfying chosen parameters: 3472872

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :  
N\_Geneseq\_032802.\*  
1: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA1980.DAT.\*  
2: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA1981.DAT.\*  
3: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA1982.DAT.\*  
4: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA1983.DAT.\*  
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21: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA2000.DAT.\*  
22: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA2001A.DAT.\*  
23: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA2001B.DAT.\*  
24: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA2002.DAT.\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | DB | ID       | Description         |
|------------|-------|-------------|--------|----|----------|---------------------|
| 1          | 390   | 100.0       | 390    | 22 | AAH46586 | Human anterior pit  |
| 2          | 390   | 100.0       | 390    | 24 | AAH46586 | DNA encoding human  |
| 3          | 390   | 100.0       | 390    | 22 | AAH46586 | Human spgh7a gene   |
| 4          | 390   | 100.0       | 390    | 22 | AAH46586 | Nucleotide sequenc  |
| 5          | 378   | 96.9        | 693    | 22 | AAH46586 | Human novel gonado  |
| 6          | 318   | 81.5        | 318    | 22 | AAH46586 | Human anterior pit  |
| 7          | 300.4 | 77.0        | 393    | 24 | AAH46586 | DNA encoding mouse  |
| 8          | 290.8 | 74.6        | 387    | 22 | AAH46586 | Rat anterior pituit |
| 9          | 260   | 66.7        | 318    | 22 | AAH46586 | Rat anterior pituit |

|    |      |      |      |    |          |                    |
|----|------|------|------|----|----------|--------------------|
| 10 | 252  | 64.6 | 1045 | 22 | AAH42568 | Nucleotide sequenc |
| 11 | 156  | 40.0 | 2985 | 24 | AAH42568 | Genomic DNA encodi |
| 12 | 61.6 | 15.8 | 495  | 7  | AAH42568 | Sequence encoding  |
| 13 | 57.8 | 14.8 | 525  | 11 | AAH42568 | Bovine beta LH sub |
| 14 | 56.8 | 14.6 | 535  | 22 | AAH41044 | gTH-beta1I subunit |
| 15 | 56.8 | 14.6 | 5651 | 22 | AAH41044 | Human FSH beta enc |
| 16 | 53   | 13.6 | 524  | 19 | AAH41044 | Equine chorionic g |
| 17 | 53   | 13.6 | 611  | 11 | AAH41044 | Equine beta LH sub |
| 18 | 51.4 | 13.2 | 843  | 19 | AAH41044 | Equine chorionic g |
| 19 | 50.4 | 12.9 | 616  | 11 | AAH41044 | Equine beta FSH su |
| 20 | 50.2 | 12.9 | 486  | 10 | AAH41044 | Sequence encoding  |
| 21 | 48.8 | 12.5 | 278  | 21 | AAH41044 | Single nucleotide  |
| 22 | 48.8 | 12.5 | 309  | 21 | AAH41044 | DNA encoding a bet |
| 23 | 48.8 | 12.5 | 312  | 21 | AAH41044 | DNA encoding a bet |
| 24 | 48.8 | 12.5 | 312  | 21 | AAH41044 | DNA encoding a bet |
| 25 | 48.8 | 12.5 | 315  | 21 | AAH41044 | DNA encoding a bet |
| 26 | 48.8 | 12.5 | 315  | 21 | AAH41044 | DNA encoding a bet |
| 27 | 48.8 | 12.5 | 315  | 21 | AAH41044 | DNA encoding a bet |
| 28 | 48.8 | 12.5 | 318  | 21 | AAH41044 | DNA encoding a bet |
| 29 | 48.8 | 12.5 | 318  | 21 | AAH41044 | DNA encoding a bet |
| 30 | 48.8 | 12.5 | 318  | 21 | AAH41044 | DNA encoding a bet |
| 31 | 48.8 | 12.5 | 321  | 21 | AAH41044 | DNA encoding a bet |
| 32 | 48.8 | 12.5 | 321  | 21 | AAH41044 | DNA encoding a bet |
| 33 | 48.8 | 12.5 | 321  | 21 | AAH41044 | DNA encoding a bet |
| 34 | 48.8 | 12.5 | 324  | 21 | AAH41044 | DNA encoding a bet |
| 35 | 48.8 | 12.5 | 324  | 21 | AAH41044 | DNA encoding a bet |
| 36 | 48.8 | 12.5 | 324  | 21 | AAH41044 | DNA encoding a bet |
| 37 | 48.8 | 12.5 | 327  | 21 | AAH41044 | DNA encoding a bet |
| 38 | 48.8 | 12.5 | 327  | 21 | AAH41044 | DNA encoding a bet |
| 39 | 48.8 | 12.5 | 327  | 21 | AAH41044 | DNA encoding a bet |
| 40 | 48.8 | 12.5 | 330  | 21 | AAH41044 | DNA encoding a bet |
| 41 | 48.8 | 12.5 | 330  | 21 | AAH41044 | DNA encoding a bet |
| 42 | 48.8 | 12.5 | 333  | 21 | AAH41044 | DNA encoding a bet |
| 43 | 48.8 | 12.5 | 333  | 21 | AAH41044 | DNA encoding a bet |
| 44 | 48.8 | 12.5 | 348  | 18 | AAH41044 | DNA encoding a bet |
| 45 | 48.8 | 12.5 | 348  | 18 | AAH41044 | DNA encoding a bet |

ALIGNMENTS

RESULT 1  
AAH46586  
ID AAH46586 standard; DNA; 390 BP.  
AC AAH46586;  
DT 17-SEP-2001 (first entry)  
XX Human anterior pituitary hormone-related polynucleotide #1.  
XX Human; anterior pituitary hormone; hypertension; autoimmune disease;  
XX heart failure; ds.  
XX Homo sapiens.  
XX WO200144475-A1.  
XX 21-JUN-2001.  
XX 15-DEC-2000; 2000WO-JP08896.  
XX PF 17-DEC-1999; 99JP-0358707.  
XX PR 18-FEB-2000; 2000JP-0046825.  
XX (TAKE ) TAKEDA CHEM IND LTD.  
XX Hinuma S, Fukusumi S, Fujii R, Hosoya M;  
XX WPT: 2001-408485/43.  
XX P-PSDB: AAG64064.  
XX Polypeptides for treatment of hypertension, autoimmune disease and

|          |  |
|----------|--|
| PT       | heart failure -  |
| XX       |  |
| PS       | Claim 7; Fig 1; 107pp; Japanese.   |
| CC       | The invention relates to a novel polypeptide comprising a fully defined  |
| CC       | 130 amino acid sequence given in the specification and its amides,       |
| CC       | esters and salts. The polypeptide has anterior pituitary hormone-related |
| CC       | activity. It is useful for the treatment of hypertension, autoimmune     |
| CC       | diseases and heart failure. The screening method and kit also            |
| CC       | provided in the invention are useful for identifying new substances      |
| CC       | for treating and preventing these diseases. The present sequence encodes |
| CC       | the polypeptide of the invention.  |
| XX       |  |
| SQ       | Sequence 390 BP; 69 A; 128 C; 106 G; 87 T; 0 other;                      |
|          |  |
|          | Query Match 100.0%; Score 390; DB 22; Length 390;                        |
|          | Best Local Similarity 100.0%; Pred. No. 4.7e-102;                        |
|          | Matches 390; Conservative 0; Mismatches 0; Indels 0; Gaps 0;             |
| OY       | 1 ATGAAGCTGGCATTTCCTTCTTGCGGCCATGAGCCCTCTCTTGAGCTATGAC 60                |
| Db       | 1 ATGAAGCTGGCATTCCTTCTTGCGGCCATGAGCCCTCTCTTGAGCTATGAC 60                 |
| OY       | 61 TGTCGTCTGGGCTCCAGTAGGAACTGGCGACCCTTTGTGGGCTGTCCGTGAAGAG 120           |
| Db       | 61 TGTCGTCTGGGCTCCAGTAGGAACTGGCGACCCTTTGTGGGCTGTCCGTGAAGAG 120           |
| OY       | 121 TTACTTTCTTGCCCAAGAAGCCAGGCTCAGAGGCTTCGGATCACACGAGTGCCTGC 180         |
| Db       | 121 TTACTTTCTTGCCCAAGAAGCCAGGCTCAGAGGCTTCGGATCACACGAGTGCCTGC 180         |
| OY       | 181 TGGGCTCGCTGTGAGACTGGGAGAAACCCATTCTTGAAACCCCTATATTGAAGCCAT 240        |
| Db       | 181 TGGGCTCGCTGTGAGAACCTGGGAGAAACCCATTCTTGGAACCCCTATATTGAAGCCAT 240      |
| OY       | 241 CATCAGTCTGTACCTACACAAGAGACCAAGAGGTGACTGTCAAGTGGCCCAACTGTGCC 300      |
| Db       | 241 CATCAGTCTGTACTACACAAGAGACCAAGAGGTGACTGTAAAGTGGCCCAACTGTGCC 300       |
| OY       | 301 CGGAGAGTCGACCCCTTCTTACACCTATCCCGTGGCCATCCGCTGTGACTGCGAGAGCTTGC 360   |
| Db       | 301 CGGAGAGTCGACCCCTTCTTACACCTATCCCGTGGCCATCCGCTGTGACTGCGAGAGCTTGC 360   |
| OY       | 361 TTCACCTGGCCACCGAGGAGTGTGAGACCATC 390                                 |
| Db       | 361 TCACCTGGCCACCGAGGAGTGTGAGACCATC 390                                  |
| RESULT 2 |  |
| AAS17500 |  |
| ID       | AAS17500 standard; cDNA. 390 BP.   |
| XX       |  |
| AC       | AAS17500;  |
| XX       |  |
| JT       | 14-FEB-2002 (first entry)  |
| XX       |  |
| DE       | DNA encoding human beta-like glycoprotein hormone, Beta10.               |
| XX       |  |
| KW       | Human: glycoprotein hormone: beta10; homeostatic disorder: diabetes;     |
| KW       | stress response; immune system dysfunction; tissue damage; cancer;       |
| KW       | thyroid gland related condition; ss.                                     |
| XX       |  |
| OS       | Homo sapiens.  |
| XX       |  |
| FH       | Key Location/Qualifiers  |
| FT       | sig_peptide 1..72  |
| FT       | /tag= a  |
| FT       | CDS 1..390   |
| FT       | /tag= b  |
| FT       | /product= "Beta-like glycoprotein beta10"                                |
| FT       | /partial   |
| FT       | /note= "No stop codon given"   |
| FT       | mat_peptide 73..390  |

|                       |   |                        |
|-----------------------|---|------------------------|
| FT                    |   | /tag= C                |
| FT                    |   | /note= "Mature beta10" |
| FN                    |   |                        |
| PX                    | WO200173034-A2.   |                        |
| XX                    |   |                        |
| XX                    | 04-OCT-2001.  |                        |
| PD                    |   |                        |
| PF                    | 28-MAR-2001; 2001WO-US09999.  |                        |
| XX                    |   |                        |
| PR                    | 28-MAR-2000; 2000US-19265AP.  |                        |
| PR                    | 24-APR-2000; 2000US-19921IP.  |                        |
| PR                    | 27-NOV-2000; 2000US-0723970.  |                        |
| PA                    | (AMGE-) AMGEN INC.  |                        |
| PI                    |   |                        |
| XX                    | Passty CJR, Cao J, Danilenko DM, Gong J, Hall DC;   |                        |
| DR                    | WPI; 2002-055150/07.  |                        |
| XX                    | P-PSDB; AAU10356.   |                        |
| PT                    | New polynucleotides encoding polypeptides for treating and diagnosing disorders such as thyroid gland related conditions comprises novel human glycoprotein hormone polypeptide, and the beta10 protein -   |                        |
| XX                    | Claim 1; Fig 1; 20PP; English.  |                        |
| PS                    |   |                        |
| CC                    | The invention relates to an isolated polynucleotide (I) encoding beta-like glycoprotein polypeptide. The polynucleotides, polypeptides and heterodimers can be administered therapeutically (e.g. by administering the polynucleotides to modulate levels of beta10 polypeptide or heterodimer; to treat or prevent diseases and disorders such as homeostatic disorders (e.g. diabetes), disorders related to stress responses (e.g. immune system dysfunction) or disorders requiring increased cell differentiation/proliferation (e.g. tissue damage during cancer treatment). They can be included in compositions which are used for the same purposes. They are useful to diagnose pathological conditions or susceptibility to pathological conditions, especially thyroid gland related conditions. The polypeptides and heterodimers can be used to identify binding compounds. They are useful for producing antibodies, and for detecting or quantifying beta10 polypeptides, heterodimers, and selective binding agents. The polynucleotides can be used to produce cells comprising the polynucleotide, and for producing polypeptides/heterodimers and identifying compounds modulating beta 10 polypeptide/heterodimer activity by detecting changes in activity or production in the cell. They can also be used to produce implantation devices to administer polypeptide/heterodimers. The present sequence represents the DNA encoding beta-like glycoprotein hormone beta10. |                        |
| SO                    | Sequence 390 BP; 69 A; 128 C; 106 G; 87 T; 0 other:   |                        |
| Query Match           | 100.0%; Score 390; DB 24; Length 390;   |                        |
| Best Local Similarity | 100.0%; Pred. No. 4 / e-102;  |                        |
| Matches 390:          | Conservative 0; Mismatches 0; Indels 0; Gaps 0;   |                        |
| Gy                    | 1 ATGAAGCTGGCAATTCCTCTTCTGCCCCAATGGCCCTCCTTGCGTGGCATATGC 60   |                        |
| Db                    | 1 ATGAAGCTGGCAATTCCTCTTCTGCCCCAATGGCCCTCCTTGCGTGGCATATGC 60   |                        |
| Gy                    | 61 TGTGTCCTGGAGCCTCCAGTGGGAACCTGCCACCTTTGTGGGCTGTGCGTGAAGGAG 120  |                        |
| Db                    | 61 TGTGTCCTGGAGCCTCCAGTGGGAACCTGCCACCTTTGTGGGCTGTGCGTGAAGGAG 120  |                        |
| Gy                    | 121 TTACTTTCCTGCGCAAGAAGCCAGGCTGCAGGGGCTTCGGATACACCAGATCCTGC 180  |                        |
| Db                    | 121 TTACTTTCCTGCGCAAGAAGCCAGGCTGCAGGGGCTTCGGATACACCAGATCCTGC 180  |                        |
| Gy                    | 181 TGGGTCGCTGTGAGAACCTGGAGAAACCATTTCTGGAACCCCCTATTATTGAAGCCAT 240  |                        |
| Db                    | 181 TGGGTCGCTGTGAGAACCTGGAGAAACCATTTCTGGAACCCCCTATTATTGAAGCCAT 240  |                        |
| Gy                    | 241 CATGAGTCTGTACTACAAGAGCAAAACAGGTGACTGTCAAGCTGCCCAACTGTGCC 300  |                        |
| Db                    | 241 CATGAGTCTGTACTACAAGAGCAAAACAGGTGACTGTCAAGCTGCCCAACTGTGCC 300  |                        |

Db 241 CATGAGTCTGTACTACCAACGAGACCAACAGGAGTGTGACGCTGACCGCCACTGTGCC 300  
Qy 301 CCGGAGTGCACCCCTTCTTACACTATCCGTGCCATCCGCTGTGACTGCGGAGCCTGC 360  
Db 301 CCGGAGTGCACCCCTTCTTACACTATCCGTGCCATCCGCTGTGACTGCGGAGCCTGC 360  
Qy 361 TCCACTGCCACGAGGAGTGTGAGACCATC 390  
Db 361 TCCACTGCCACGAGGAGTGTGAGACCATC 390

RESULT 3  
AAD16347 standard; DNA: 393 BP.  
AC AAD16347;  
XX 19-NOV-2001 (first entry)  
XX Human sbhgta gene.  
XX  
XX Human: Alzheimer's disease; amyotrophic lateral sclerosis;  
KW ALS; Zollinger-Ellison syndrome; immune system disease; schizophrenia;  
KW inflammation; haematopoietic disease; anxiety; feeding disorder; aging;  
KW anorexia; depression; cardiovascular disease; sleep disorder; seizure;  
KW memory alteration; migraine; stroke; asthma; neuropathy; hypoglycaemia;  
KW sexual disorder; growth abnormality; infection; autoimmune disease;  
KW rheumatoid arthritis; cataractogenesis; angiogenesis; atherosclerosis;  
KW cerebral ischaemia; cirrhosis; Huntington's disease; Hodgson's disease;  
KW hypercholesterolaemia; headache; amnesia; cardiac arrhythmia; obesity;  
KW diabetes mellitus; glomerulonephritis; renovascular hypertension;  
KW cancer; vaccine; gene therapy; sbhgta gene; ds.  
XX  
XX Homo sapiens.  
OS  
FH Key Location/Qualifiers  
FT CDS 1..393  
FT /tag= a  
FT /product= "Human sbhgta protein"  
XX  
XX WO200160850-A1.  
XX  
XX 23-AUG-2001.  
XX  
XX 14-FEB-2001; 2001WO-US04703.  
XX  
XX 14-FEB-2000; 2000US-0182172.  
XX PR 29-FEB-2000; 2000US-0186084.  
XX PR 18-APR-2000; 2000US-0198583.  
XX PR 04-OCT-2000; 2000US-0237963.  
XX  
XX (SMIK ) SMITHKLINE BEECHAM CORP.  
XX (SMIK ) SMITHKLINE BEECHAM PLC.  
XX  
XX Agarwal P, Kabnick KS, Murdoch PR, Rizvi SK, Smith RF, Xiang Z;  
XX WPI: 2001-536566/59.  
XX DR P-PSDB; AAE09440.  
XX  
XX New secreted and membrane associated polypeptides for treating  
PT Alzheimer's disease, psoriasis, cancer, enterocolitis, sleep and sexual  
PT disorders, stroke, and asthma  
XX  
XX Claim 2; Page 38; 94pp; English.  
XX  
XX The present sequence is a gene encoding human sbhgta protein,  
CC a secreted protein of the invention.  
CC  
CC The invention relates to secreted and membrane associated polypeptides  
CC and nucleic acid molecules encoding such polypeptides. Sequences of the  
CC invention are useful for treating diseases such as Alzheimer's disease,  
CC amyotrophic lateral sclerosis (ALS), Zollinger-Ellison syndrome, diseases  
CC of the immune system, haematopoietic disease, inflammation, anxiety,  
CC schizophrenia, feeding disorders, anorexia, depression, social, sexual

CC and rewarded behaviour, cardiovascular disease, sleep disorder, learning  
CC and memory alteration and altered immune response, seizure, migraine,  
CC cancer, stroke, asthma, neuropathy, aging, sexual disorders, treatment  
CC of transsexuals, growth abnormalities, obesity, infections, autoimmune  
CC diseases (e.g. rheumatoid arthritis), cataractogenesis, angiogenesis,  
CC disorders associated with healthy maintenance of gastric mucosa and  
CC repair of acute and chronic mucosal lesion, lung carcinoma, cerebral  
CC ischaemia, atherosclerosis, cirrhosis, Huntington's disease, headache,  
CC amnesia, multiple sclerosis, Hodgson's disease, dilated cardiomyopathy,  
CC congestive heart failure, cardiac arrhythmias, hypercholesterolaemia,  
CC viral and non-viral hepatitis, type I and type II diabetes mellitus,  
CC glomerulonephritis, renovascular hypertension, hypoglycaemia, periodic  
CC paralysis, tendinitis and malignant hyperthermia. Polypeptides of the  
CC invention are used to identify membrane bound and soluble receptors.  
CC They are also useful as vaccines for inducing an immunological response  
CC in a mammal. Polynucleotides of the invention are used in gene therapy.  
CC They are also valuable for chromosome localisation studies and tissue  
CC expression studies.  
XX  
XX Sequence 393 BP; 70 A; 128 C; 107 G; 88 T; 0 other;  
SO  
Query Match 100.0%; Score 390; DB 22; Length 393;  
Best Local Similarity 100.0%; Pred. No. 4; 7e-102;  
Matches 390; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 ATGAAGCTGGCATTCCTCTTCTGGCCCATGGCCCTCCCTCTGTGGCTGCTATGAGC 60  
Db 1 ATGAAGCTGGCATTCCTCTTCTGGCCCATGGCCCTCCCTCTGTGGCTGCTATGAGC 60  
Qy 61 TGTGCTCTCGGGGCTCCAGTGGGAAGCTGGCACCCTTGTGGCTGTGCGTGAAGAG 120  
Db 61 TGTGCTCTCGGGGCTCCAGTGGGAAGCTGGCACCCTTGTGGCTGTGCGTGAAGAG 120  
Qy 121 TTTACTTCTCTGGCCAGAGCCAGGCTGACGGGCTTGGATACCAAGATCCCTGC 180  
Db 121 TTTACTTCTCTGGCCAGAGCCAGGCTGACGGGCTTGGATACCAAGATCCCTGC 180  
Qy 181 TGGGCTCGCTGTGAGACCTGGGAGAAACCATCTTGTGGAACCCCTATATTGAACCCAT 240  
Db 181 TGGGCTCGCTGTGAGACCTGGGAGAAACCATCTTGTGGAACCCCTATATTGAACCCAT 240  
Qy 241 CATGAGTCTGTACTACAGAGCAAAACAGTGTGACTGTCAAGCTGCCCAACTGTGCC 300  
Db 241 CATGAGTCTGTACTACAGAGCAAAACAGTGTGACTGTCAAGCTGCCCAACTGTGCC 300  
Qy 301 CCGGAGTGCACCCCTTCTTACACTATCCCGTGGCCATCCGCTGTGACTGCGGAGCCTGC 360  
Db 301 CCGGAGTGCACCCCTTCTTACACTATCCCGTGGCCATCCGCTGTGACTGCGGAGCCTGC 360  
Qy 361 TCCACTGCCACGAGGAGTGTGAGACCATC 390  
Db 361 TCCACTGCCACGAGGAGTGTGAGACCATC 390

RESULT 4  
AAH42567 standard; DNA: 917 BP.  
XX  
XX AAH42567;  
XX  
XX 01-OCT-2001 (first entry)  
XX  
XX Nucleotide sequence of a human cystine knot polypeptide.  
XX  
XX Cystine knot polypeptide; follicular arrest; recruitment modulator;  
KW fertility-related disorder; contraception; menopause; contraceptive;  
KW follicle growth; ss.  
XX  
XX Homo sapiens.  
OS  
XX  
XX Key Location/Qualifiers  
XX CDS 101..493  
XX /tag= a

```
FT XX /product= "cystine knot polypeptide"
XX PN WO200153346-A1.
XX XX
XX PD 26-JUL-2001.
XX XX
XX PF 17-JAN-2001; 2001WO-EP00570.
XX PR 18-JAN-2000; 2000EP-0200185.
XX XX
XX PA (ALKU ) AKZO NOBEL NV.
XX PI
XX PI Moseleman S, Spek Van Der PJ;
XX DR WPI; 2001-476102/51.
XX DR P-PSDB; AAG63211.
XX XX
XX PT New DNA sequences, useful for coding or producing cystine knot
XX PT polypeptides, which are useful in preparing a pharmaceutical for
XX PT fertility-related disorders or contraception, and for controlling
XX PT follicular arrest and recruitment.
XX PS
XX PS Claim 6; Page 23; 29pp; English.
XX CC
XX CC The present sequence encodes a human cystine knot polypeptide. The
XX CC polypeptide is a follicular arrest and recruitment modulator. Cystine
XX CC knot polypeptides are useful in preparing a pharmaceutical for
XX CC fertility-related disorders or in contraception. The polypeptide is
XX CC particularly useful for controlling follicular arrest and recruitment.
XX CC Inhibition of recruitment can be used to delay (premature) menopause or
XX CC as a contraceptive. The polypeptide is also useful for in vitro
XX CC maturation and growth of follicles, e.g. from frozen ovarian tissue.
XX SQ
XX SQ Sequence 917 BP; 222 A; 249 C; 205 G; 241 T; 0 other;
XX
XX Query Match 100.0%; Score 390; DB 22; Length 917;
XX Best Local Similarity 100.0%; Pred. No. 6.1e-102;
XX Matches 390; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 ATGAAGCTGGCATTCCTTCCTTGGGCCCATGGCCCTCCTCTGCTGCTATGCG 60
XX DB 101 ATGAAGCTGGCATTCCTTCCTTGGGCCCATGGCCCTCCTCTGCTGCTATGCG 160
XX
XX QY 61 TGTGTCCTCGGTCTCTCACTGGGAACCTGCGACCTTTGTGGGCTGTGCCGTAGGAG 120
XX DB 161 TGTGTCCTCGGTCTCTCACTGGGAACCTGCGACCTTTGTGGGCTGTGCCGTAGGAG 220
XX
XX QY 121 TTACTCTTCTGGCCAAAGAACGAGCTGAGGGGCTTTCGATACACAGGATGCTGCG 180
XX DB 221 TTACTCTTCTGGCCAAAGAACGAGCTGAGGGGCTTTCGATACACAGGATGCTGCG 280
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XX QY 181 TGGGTCGCTGTGAGACCTTGGGAACCCATTCCTGAAACCCCTATATTGAAGCCAT 240
XX DB 281 TGGGTCGCTGTGAGACCTTGGGAACCCATTCCTGAAACCCCTATATTGAAGCCAT 340
XX
XX QY 241 CATGAGTGTGTAACCTAACAGACCAACAGAGTACTGTCAAGTGGCCCAACTGTGCC 300
XX DB 341 CATGAGTGTGTAACCTAACAGACCAACAGAGTACTGTCAAGTGGCCCAACTGTGCC 400
XX
XX QY 301 CGGGAGTGGACCCCTTCTACCTATCCGTCGGGCAATCCGCTGACTCGGAGGCTGC 360
XX DB 401 CGGGAGTGGACCCCTTCTACCTATCCGTCGGGCAATCCGCTGACTCGGAGGCTGC 460
XX
XX QY 361 TCCACTGCCACACAGGAGTGTGAGACCATC 390
XX DB 461 TCCACTGCCACACAGGAGTGTGAGACCATC 490
XX
XX RESULT 5
XX AAF83867
XX ID AAF83867 standard; cDNA; 693 BP.
XX AC AAF83867;
```

```
XX XX
XX DT 06-AUG-2001 (first entry)
XX DE Human novel gonadotropin (NOVGON) protein encoding cDNA.
XX XX
XX XX NOVG, transmembrane protein; NOVTRAN; neuromedin peptide; NOVNEUR;
XX KW gonadotropin-like protein; NOVGON; interleukin-1; NOVINTRA; human;
XX KW cytosolic; neuroprotective; reproductive; antiinflammatory; cancer;
XX KW antibacterial; cerebroprotective; antidiabetic; antiarthritic;
XX KW antiallergic; ss.
XX XX
XX OS Homo sapiens.
XX XX
XX FH Key Location/Qualifiers
XX FT CDS 1..693
XX FT /tag= a
XX FT /product= "NOVGON"
XX XX
XX PN WO200140291-A2.
XX PD
XX PD 07-JUN-2001.
XX XX
XX PF 06-DEC-2000; 2000WO-US33029.
XX XX
XX PR 06-DEC-1999; 99US-0169056.
XX PR 09-DEC-1999; 99US-0169866.
XX PR 09-DEC-1999; 99US-0169866.
XX PR 10-DEC-1999; 99US-0170252.
XX PR 12-JAN-2000; 2000US-0175740.
XX PR 05-DEC-2000; 2000US-0170252.
XX XX
XX PA (CURA-) CURAGEN CORP.
XX XX
XX PI Burgess CE, Prayaga SK, Shimkets RA, Rastelli L, Zerhusen BD;
XX PI Mezes PS.
XX XX
XX DR WPI; 2001-374790/39.
XX DR P-PSDB; AAB84998.
XX XX
XX PT Novel isolated human transmembrane, neuromedin peptide
XX PT gonadotropin-like protein and interleukin-1 receptor antagonist
XX PT proteins, useful for treating cancer, immune response disorder,
XX PT metabolic function disorders.
XX PS
XX PS Claim 8; Fig 6A; 138pp; English.
XX XX
XX CC The invention provides novel polypeptides (NOVG) selected from human
XX CC transmembrane protein (NOVTRAN), neuromedin peptide (NOVNEUR),
XX CC gonadotropin-like protein (NOVGON) and two interleukin-1 receptor
XX CC antagonist proteins (NOVINTRA A and B). The invention also provides
XX CC methods in which a NOVG polypeptide, polynucleotide and antibody are
XX CC used in the detection, prevention and treatment of a broad range of
XX CC pathological states. NOVTRAN can be used to treat a cell signaling
XX CC disorder such as cancer, immune response disorder, hematopoietic
XX CC disorder, neurodegenerative disorder. NOVNEUR can be used to treat
XX CC endocrine disorder, muscle disorder, neurologic disorder, cancers of
XX CC central nervous system, breast, colon, ovary, kidney, prostate and
XX CC thyroid. NOVGON can be used to treat reproductive development disorder,
XX CC metabolic function disorder and melanoma. NOVINTRA A and B can be used
XX CC to treat bone metabolism or structure disorder, inflammatory response
XX CC disorder, immune regulation disorder, septic shock, stroke, diabetes,
XX CC arthritis and cancer. The present sequence represents a cDNA encoding
XX CC the NOVGON polypeptide.
XX SQ
XX SQ Sequence 693 BP; 138 A; 197 C; 196 G; 162 T; 0 other;
XX
XX Query Match 96.9%; Score 378; DB 22; Length 693;
XX Best Local Similarity 100.0%; Pred. No. 1.5e-98;
XX Matches 378; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 ATGAAGCTGGCATTCCTTCCTTGGGCCCATGGCCCTCCTCTGCTGCTATGCG 60
XX DB 1 ATGAAGCTGGCATTCCTTCCTTGGGCCCATGGCCCTCCTCTGCTGCTATGCG 60
```

QY 61 TGTGTCTCTGCTGCTCAGTGGGAACTGCGACCTTTGTGGGCTGTGCGGTGAGGAG 120  
 Db 61 TGTGTCTCTGCTGCTCAGTGGGAACTGCGACCTTTGTGGGCTGTGCGGTGAGGAG 120  
 QY 121 TTTACTTTCCTGGCCAGAAAGCCAGGCTGCGAGGGCTTGGATCACCACGATGCTGC 180  
 Db 121 TTTACTTTCCTGGCCAGAAAGCCAGGCTGCGAGGGCTTGGATCACCACGATGCTGC 180  
 QY 181 TGGGCTGCTGTGAGACCTGGGAGAAACCAATTCGTAACCCCTATATTGAAGCCCAT 240  
 Db 181 TGGGCTGCTGTGAGACCTGGGAGAAACCAATTCGTAACCCCTATATTGAAGCCCAT 240  
 QY 241 CATGAGTCTGTACTACTACAGAGAACCAAGAGTGAAGTGAAGTGCACCTGCTGCC 300  
 Db 241 CATGAGTCTGTACTACTACAGAGAACCAAGAGTGAAGTGAAGTGCACCTGCTGCC 300  
 QY 301 CCGGAGTTCGACCCCTTCTACACCTATCCGTCGATCCGCTGCTGAGTGGAGCTGC 360  
 Db 301 CCGGAGTTCGACCCCTTCTACACCTATCCGTCGATCCGCTGCTGAGTGGAGCTGC 360  
 QY 361 TCCACTGCCACACGAG 378  
 Db 361 TCCACTGCCACACGAG 378

RESULT 6  
 AAH46589  
 ID AAH46589 standard; DNA: 318 BP.

AC AAH46589;

DT 17-SEP-2001 (first entry)

DE Human anterior pituitary hormone-related polynucleotide #2.

KM Human: anterior pituitary hormone; hypertension; autoimmune disease; heart failure; ds.

OS Homo sapiens.

PN WO200144475-A1.

PD 21-JUN-2001.

PF 15-DEC-2000; 2000WO-JP08896.

PR 17-DEC-1999; 99JP-0358707.

PR 18-FEB-2000; 2000JP-0046825.

PA (TAKE ) TAKEDA CHEM IND LTD.

PI Hinuma S, Fukusumi S, Fujil R, Hosoya M;

DR WPI: 2001-408485/43.

DR P-PSDB; AAG64065.

XX Polypeptides for treatment of hypertension, autoimmune disease and heart failure

PS Claim 7; Page 100-101; 107pp; Japanese.

CC The invention relates to a novel polypeptide comprising a fully defined  
 CC 130 amino acid sequence given in the specification and its amides,  
 CC esters and salts. The polypeptide has anterior pituitary hormone-related  
 CC activity. It is useful for the treatment of hypertension, autoimmune  
 CC diseases and heart failure. The screening method and kit also  
 CC provided in the invention are useful for identifying new substances  
 CC for treating and preventing these diseases. The present sequence  
 CC encodes a polypeptide of the invention.

Sequence 318 BP; 63 A; 103 C; 88 G; 64 T; 0 other;

Query Match 81.5%; Score 318; DB 22; Length 318;  
 Best Local Similarity 100.0%; Pred. No. 1.8e-81;  
 Matches 318; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 73 GCTTCAGTGGGAACCTTCGACCTTTGTGGCTGTGCGCTGAGGAGATTACTTTCCTG 132  
 Db 1 GCTTCAGTGGGAACCTTCGACCTTTGTGGCTGTGCGCTGAGGAGATTACTTTCCTG 60  
 QY 133 GCCAAGAAGCCAGGCTGAGGGCCCTTGGAATCACACGATGCTGCTGGGCTGCTGT 192  
 Db 61 GCCAAGAAGCCAGGCTGAGGGCCCTTGGAATCACACGATGCTGCTGGGCTGCTGT 120  
 QY 193 GAGACCTGGGAAACCATTCGTGAACCCCTATATTGAAGCCCATCATGAGTCTGT 252  
 Db 121 GAGACCTGGGAAACCATTCGTGAACCCCTATATTGAAGCCCATCATGAGTCTGT 180  
 QY 253 ACCTACACAGAGACCAACAGAGTGAAGTCAAGTGCACCTGCTGCCGAGTGCAG 312  
 Db 181 ACCTACACAGAGACCAACAGAGTGAAGTCAAGTGCACCTGCTGCCGAGTGCAG 240  
 QY 313 CCTTCTACACCTATCCGTCGATCCGCTGTGACTGCGGAGCTGCTCCACTGCCACC 372  
 Db 241 CCTTCTACACCTATCCGTCGATCCGCTGTGACTGCGGAGCTGCTCCACTGCCACC 300  
 QY 373 ACGAGTGTGAGACCATC 390  
 Db 301 ACGAGTGTGAGACCATC 318

RESULT 7  
 ID AAS17508  
 AAS17508 standard; cDNA: 393 BP.

AC AAS17508;

DT 14-FEB-2002 (first entry)

DE DNA encoding mouse beta-like glycoprotein hormone, Beta10.

KM Mouse; glycoprotein hormone; beta10; homeostatic disorder; diabetes; stress response; immune system dysfunction; tissue damage; cancer;

KW thyroid gland related condition; ss.

OS Mus musculus.

FH Key Location/Qualifiers

FT sig\_peptide 1..69

FT CDS 1..393

FT /tag= a

FT /tag= b

FT /product= "Beta-like glycoprotein beta10"

FT /tag= c

FT /note= "Mature beta10"

PN WO200173034-A2.

PF 04-OCT-2001.

PF 28-MAR-2001; 2001WO-US09999.

PR 28-MAR-2000; 2000US-192654P.

PR 24-APR-2000; 2000US-199211P.

PR 27-NOV-2000; 2000US-0723970.

PA (AMGE-) AMGEN INC.

PI Paszty CJR, Cao J, Danilenko DM, Gong J, Hill DC;

DR WPI: 2002-055150/07.

DR P-PSDB; AAU10368.

XX New polynucleotides encoding polypeptides for treating and diagnosing

PT disorders such as thyroid gland related conditions comprises novel  
PT human glycoprotein hormone polypeptide, and the beta10 protein -  
XX  
XX  
PS Example 5; Page 194; 201pp; English.

CC The invention relates to an isolated polynucleotide (1) encoding  
CC beta-like glycoprotein polypeptide. The polynucleotides, polypeptides and  
CC heterodimers can be administered therapeutically (e.g. by administering  
CC the polynucleotides to modulate levels of beta10 polypeptide or  
CC heterodimer; to treat or prevent diseases and disorders such as  
CC homeostatic disorders (e.g. diabetes), disorders related to stress  
CC responses (e.g. immune system dysfunction) or disorders requiring  
CC increased cell differentiation/proliferation (e.g. tissue damage during  
CC cancer treatment). They can be included in compositions which are used  
CC for the same purposes. They are useful to diagnose pathological  
CC conditions or susceptibility to pathological conditions, especially  
CC thyroid gland related conditions. The polypeptides and heterodimers can  
CC be used to identify binding compounds. They are useful for producing  
CC antibodies, and for detecting or quantifying beta10 polypeptides,  
CC heterodimers, and selective binding agents. The polynucleotides can be  
CC used to produce cells comprising the polynucleotide, and for producing  
CC polypeptides/heterodimers and identifying compounds modulating beta 10  
CC polypeptide/heterodimer activity by detecting changes in activity or  
CC production in the cell. They can also be used to produce implantation  
CC devices to administer polypeptide/heterodimers. The present  
CC sequence represents the DNA encoding mouse beta-like glycoprotein hormone  
CC beta10.  
CC  
XX  
XX

SQ Sequence 393 BP; 78 A; 111 C; 109 G; 95 T; 0 other;

Query Match 77.0%; Score 300.4; DB 24; Length 393;

Best Local Similarity 85.6%; Pred. No. 2.1e-76;

Matches 334; Conservative 0; Mismatches 56; Indels 0; Gaps 0;

QY 1 ATGAAGCTGGACATTCCTCTCTGCGCCCATGCGCCCTCTCTGCGCTATGAGC 60  
DB 1 ATGAAGCTGGATACCTTGTCTGCGAGTGCGCCCTCTCTGCGCTATGAGC 60  
QY 61 TGTGTCCTGCGTCCCTGCAAGAGGAACTGCGACCTTTGTGGCTGTGCGGTGAGGAG 120  
DB 61 TGTGTCCTGCGAGCTCCAGAGGAACTGCACTTTGTGGCTGTGAGGAG 120  
QY 121 TTACTCTTCTGCGCAAGAGGAACTGCGAGGCTTGCATGCAACGATGCTGCG 180  
DB 121 TTACTCTTCTGCGCAAGAGGAACTGCGAGGCTTGCATGCAACGATGCTGCG 180  
QY 181 TGGGTCGCTGAGAGAGCTGGAGAAACCATCTGTAACCCCTATATTTGAAGCCAT 240  
DB 181 TGGGTCGCTGAGAGAGCTGGAGAAACCATCTGTAACCCCTATATTTGAAGCCAT 240  
QY 241 CATCGAGTGTACTACACAGACCAAGAGTGTCAAGCTGCCCAACTGTGCC 300  
DB 241 CATCGAGTGTACTACACAGACCAAGAGTGTCAAGCTGCCCAACTGTGCC 300  
QY 301 CCGGAGTGGACCCCTTCTACACCTATCCCGTGGCCATCCGCTGACGTGGAGGCTGC 360  
DB 301 CCGGAGTGGACCCCTTCTACACCTATCCCGTGGCCATCCGCTGACGTGGAGGCTGC 360  
QY 361 TCCACTGCGACCAAGAGTGTGAGACCATC 390  
DB 361 TCCACTGCGACCAAGAGTGTGAGACCATC 390

RESULT 8  
AAH46593

ID AAH46593 standard; DNA; 387 BP.

XX AAH46593;

XX 17-SEP-2001 (first entry)

XX Rat anterior pituitary hormone-related polynucleotide #1.

KW Rat; anterior pituitary hormone; hypertension; autoimmune disease;  
KW heart failure; ds.

XX Rattus sp.

PN WO200144475-A1.

PD 21-JUN-2001.

PF 15-DEC-2000; 2000MO-JP08896.

PR 17-DEC-1999; 99UP-0358707.

PR 18-FEB-2000; 2000UP-0046825.

PA (TAKE ) TAKEDA CHEM IND LTD.

PI Hinuma S, Fukusumi S, Fujii R, Hosoya M;

DR WPI; 2001-408485/43.

DR P-PSDB; AAG64067.

PS Claim 7; Page 103; 107pp; Japanese.

CC The invention relates to a novel polypeptide comprising a fully defined  
CC 130 amino acid sequence given in the specification and its amides,  
CC esters and salts. The polypeptide has anterior pituitary hormone-related  
CC activity. It is useful for the treatment of hypertension, autoimmune  
CC diseases and heart failure. The screening method and kit also  
CC provided in the invention are useful for identifying new substances  
CC for treating and preventing these diseases. The present sequence is  
CC is a polynucleotide encoding a polypeptide provided in the specification.  
XX  
XX

SQ Sequence 387 BP; 77 A; 110 C; 108 G; 92 T; 0 other;

Query Match 74.6%; Score 290.8; DB 22; Length 387;

Best Local Similarity 85.9%; Pred. No. 1.2e-73;

Matches 335; Conservative 0; Mismatches 52; Indels 3; Gaps 1;

QY 1 ATGAAGCTGGACATTCCTCTCTGCGCCCATGCGCCCTCTCTGCGCTATGAGC 60  
DB 1 ATGAAGCTGGATACCTTGTCTGCGAGTGCGCCCTCTCTGCGCTATGAGC 57  
QY 61 TGTGTCCTGCGTCCCTGCAAGAGGAACTGCGACCTTTGTGGCTGTGCGGTGAGGAG 120  
DB 58 TGTGTCCTGCGAGCTCCAGAGGAACTGCACTTTGTGGCTGTGAGGAG 117  
QY 121 TTACTCTTCTGCGCAAGAGGAACTGCGAGGCTTGCATGCAACGATGCTGCG 180  
DB 118 TTACTCTTCTGCGCAAGAGGAACTGCGAGGCTTGCATGCAACGATGCTGCG 177  
QY 181 TGGGTCGCTGAGAGAGCTGGAGAAACCATCTTGTGGAACCCCTATATTTGAAGCCAT 240  
DB 178 TGGGTCGCTGAGAGAGCTGGAGAAACCATCTTGTGGAACCCCTATATTTGAAGCCAT 240  
QY 241 CATCGAGTGTACTACACAGACCAAGAGTGTCAAGCTGCCCAACTGTGCC 300  
DB 238 CATCGAGTGTACTACACAGACCAAGAGTGTCAAGCTGCCCAACTGTGCC 297  
QY 301 CCGGAGTGGACCCCTTCTACACCTATCCCGTGGCCATCCGCTGACGTGGAGGCTGC 360  
DB 298 CCGGAGTGGACCCCTTCTACACCTATCCCGTGGCCATCCGCTGACGTGGAGGCTGC 357  
QY 361 TCCACTGCGACCAAGAGTGTGAGACCATC 390  
DB 358 TCCACTGCGACCAAGAGTGTGAGACCATC 387

RESULT 9  
AAH46594

ID AAH46594 standard; DNA; 318 BP.

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XX AAH46594;
AC
XX
DT 17-SEP-2001 (first entry)
XX
DE Rat anterior pituitary hormone-related polynucleotide #2.
XX
KM Rat; anterior pituitary hormone; hypertension; autoimmune disease;
XX heart failure; ds.
XX
OS Rattus sp.
XX
PN WO200144475-A1.
XX
PD 21-JUN-2001.
XX
PF 15-DEC-2000; 2000MO-JP08896.
XX
PR 17-DEC-1999; 99JP-0358707.
XX
PR 18-FEB-2000; 2000JP-0046825.
XX
PA (TAKE ) TAKEDA CHEM IND LTD.
XX
PI Hinuma S, Fukusumi S, Fujii R, Hosoya M;
XX
DR WPI: 2001-408485/43.
XX
DR P-PSDB; AAG64068.
XX
PT Polypeptides for treatment of hypertension, autoimmune disease and
XX heart failure -
XX
PS Claim 7; Page 104; 107pp; Japanese.
XX
CC The invention relates to a novel polypeptide comprising a fully defined
CC 130 amino acid sequence given in the specification and its amides,
CC esters and salts. The polypeptide has anterior pituitary hormone-related
CC activity. It is useful for the treatment of hypertension, autoimmune
CC diseases and heart failure. The screening method and kit also
CC provided in the invention are useful for identifying new substances
CC for treating and preventing these diseases. The present sequence is
CC a polynucleotide encoding a polypeptide provided in the specification.
XX
SQ Sequence 318 BP; 69 A; 89 C; 90 G; 70 T; 0 other:
Query Match 66.7%; Score 260; DB 22; Length 318;
Best Local Similarity 88.9%; Pred. No. 7.2e-65;
Matches 281; Conservative 0; Mismatches 35; Indels 0; Gaps 0;
OY 75 CTCAGTGGGAGACCTGGACCTTTGTGGGCTGTGCGGTGAGGAGTTTACTTTCTGCGG 134
DB 3 CTCACGGGGAGACCTACACCTTTTGTGGATGTGCTGTGAGGAATTCACTTTTGTGGC 62
OY 135 CAAGAACGCCAGGCTGACGAGGCTTCGGATCACCACGAGATCCCTGTGGGCTCGCTGTA 194
DB 63 CAAGAACGCCAGGCTGACGAGGCTTCGGATCACCACGAGATCCCTGTGGGCTCGCTGTA 122
OY 195 GACCTGGGAGAAACCCATTCTGGAACCCCTTATATTTGAAGCCCATATGAGCTGTAC 254
DB 123 GACCTGGGAGAAACCCATTCTGGAACCCCTTATATTTGAAGCCCATATGAGCTGTAC 182
OY 255 CTCACAGAGACCAAAACAGGTGACTGTCAAGCTGCCAACCTGTGCCCGGAGTGCAGCC 314
DB 183 CTCACAGAGACCAAAACAGGTGACTGTCAAGCTGCCAACCTGTGCCCGGAGTGCAGCC 242
OY 315 TTCTACACCTATTCCTGCGCATTCGCTGTGACTGGAGGAGTCTTCCATGCGCACAC 374
DB 243 CTCTTACACCTACCTATTCGCTGTGCGATGTGACTGCGGGGCAATTCACATGCCACAC 302
OY 375 GGAGTGGAGACCATC 390
DB 303 TGAATGTGAGACCATC 318

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RESULT 10
AAH42568
ID AAH42568 standard; DNA: 1045 BP.
XX
AC AAH42568;
XX
DT 01-OCT-2001 (first entry)
XX
DE Nucleotide sequence of human cystine knot polypeptide splice variant.
XX
XX Cystine knot polypeptide; follicular arrest; recruitment modulator;
XX fertility-related disorder; contraception; menopause; contraceptive;
XX follicle growth; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
XX CDS 101..328
XX FT /*tag= a
XX FT /product= "cystine knot polypeptide"
XX
PN WO200153346-A1.
XX
PD 26-JUL-2001.
XX
PD 17-JAN-2001; 2001WO-EP00570.
XX
PR 18-JAN-2000; 2000EP-0200185.
XX
PA (ALKU ) AKZO NOBEL NV.
XX
PI Mosselman S, Spek Van Der PJ;
XX
DR WPI: 2001-476102/51.
XX
DR P-PSDB; AAG63212.
XX
PT New DNA sequences, useful for coding or producing cystine knot
XX polypeptides, which are useful in preparing a pharmaceutical for
XX fertility-related disorders or contraception, and for controlling
XX follicular arrest and recruitment -
XX
PS Claim 7; Page 24; 29pp; English.
XX
CC The present sequence encodes a human cystine knot polypeptide splice
CC variant. The polypeptide is a follicular arrest and recruitment
CC modulator. Cystine knot polypeptides are useful in preparing a
CC pharmaceutical for fertility-related disorders or in contraception.
CC The polypeptide is particularly useful for controlling follicular
CC arrest and recruitment. Inhibition of recruitment can be used to delay
CC (premature) menopause or as a contraceptive. The polypeptide is also
CC useful for in vitro maturation and growth of follicles, e.g. from
CC frozen ovarian tissue.
XX
SQ Sequence 1045 BP; 254 A; 279 C; 234 G; 278 T; 0 other:
Query Match 64.6%; Score 252; DB 22; Length 1045;
Best Local Similarity 75.3%; Pred. No. 2e-62;
Matches 390; Conservative 0; Mismatches 0; Indels 128; Gaps 1;
OY 1 ATGAAGCTGGCATTCCTCTTGGCCCATGGCCCTCTCTCTTGGCTGGCTATGGC 60
DB 101 ATGAAGCTGGCATTCCTCTTGGCCCATGGCCCTCTCTCTTGGCTGGCTATGGC 160
OY 61 TGTGTCTCGGTGCTTCAGTAGGGAACCTGCGACCTTTTGGGGCTGTGCGTAGAGAG 120
DB 161 TGTGTCTCGGTGCTTCAGTAGGGAACCTGCGACCTTTTGGGGCTGTGCGTAGAGAG 220
OY 121 TTACTTTCTCGGCAAGAACCGAGGCTGACGGGCTTGGATCACACGAGATGCCGTC 180
DB 221 TTACTTTCTCGGCAAGAACCGAGGCTGACGGGCTTGGATCACACGAGATGCCGTC 280
OY 181 TGGGCTGCTGTGAGACCTGGGAG----- 204

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Db 281 TGGGGTCCGTGAGACCTGGAGCTTTTGTCAAGATGTCGTATGAACAAGGCATTTCA 340  
QY 205 ----- 204  
Db 341 AATGACATTTGTTGTTGACTGGAGATGACACCTCCCGAGCTGTAGATCTCCAGCC 400  
QY 205 -----AACCATTCTGGAAACCCCTATATTG 232  
Db 401 AATGGAAGCCATTAGAAATCACACTTGGACCTAAACCATTTCTGGAACCCCTATATTG 460  
QY 233 AAGCCATGATGAGCTGTACCTACACAGGACCAAGAGTGAACCTGCCCCA 292  
Db 461 AAGCCATATGAGTCTGTACTACACAGACCAAGAGGAGTGTCAAGCTGCCA 520  
QY 293 ACTGTGCCCCGGAGTGCAGACCCCTTCTACACCTATCCGTGGCCATCCCTGTAGTGGC 352  
Db 521 ACTGTGCCCCGGAGTGCAGACCCCTTCTACACCTATCCGTGGCCATCCCTGTAGTGGC 580  
QY 353 GAGCCTGCTCAGCTGCCACGACGAGGTGAGACCATC 390  
Db 581 GAGCCTGCTCAGCTGCCACGACGAGGTGAGACCATC 618

RESULT 11

AA517518  
ID AA517518 standard; DNA; 2985 BP.

AC AA517518;

DT 14-FEB-2002 (first entry)

DE Genomic DNA encoding mouse beta-like glycoprotein hormone, beta10.

KM Mouse; glycoprotein hormone; beta10; homeostatic disorder; diabetes;

KM stress response; immune system dysfunction; tissue damage; cancer;

KM thyroid gland related condition; ds.

OS Mus musculus.

PN WO200173034-A2.

PD 04-OCT-2001.

PF 28-MAR-2001; 2001WO-US09999.

PR 28-MAR-2000; 2000US-192654P.

PR 24-APR-2000; 2000US-199211P.

PR 27-NOV-2000; 2000US-0723970.

PA (AMGE-) AMGEN INC.

PI Paszty CJR, Cao J, Danilenko DM, Gong J, Hill DC;

DR WPI: 2002-055150/07.

PS Example 6; Page 198-199; 201pp; English.

CC The invention relates to an isolated polynucleotide (1) encoding  
CC beta-like glycoprotein polypeptide. The polynucleotides, polypeptides and  
CC heterodimers can be administered therapeutically (e.g. by administering  
CC the polynucleotides to modulate levels of beta10 polypeptide or  
CC heterodimer; to treat or prevent diseases and disorders such as  
CC homeostatic disorders (e.g. diabetes), disorders related to stress  
CC responses (e.g. immune system dysfunction) or disorders requiring  
CC increased cell differentiation/proliferation (e.g. tissue damage during  
CC cancer treatment). They can be included in compositions which are used  
CC for the same purposes. They are useful to diagnose pathological  
CC conditions or susceptibility to pathological conditions, especially  
CC thyroid gland related conditions. The polypeptides and heterodimers can

CC be used to identify binding compounds. They are useful for producing  
CC antibodies, and for detecting or quantifying beta10 polypeptides,  
CC heterodimers, and selective binding agents. The polynucleotides can be  
CC used to produce cells comprising the polynucleotide, and for producing  
CC polypeptides/heterodimers and identifying compounds modulating beta 10  
CC polypeptide/heterodimer activity by detecting changes in activity or  
CC production in the cell. They can also be used to produce implantation  
CC devices to administer polypeptide/heterodimers. The present sequence  
CC represents the genomic DNA encoding mouse beta-like glycoprotein hormone  
CC beta10.

SO Sequence 2985 BP; 784 A; 630 C; 761 G; 810 T; 0 other;

Query Match 40.0%; Score 156; DB 24; Length 2985;

Best local similarity 85.3%; Pred. No. 8.4e-35;

Matches 174; Conservative 0; Mismatches 30; Indels 0; Gaps 0;

QY 1 ATGAACTGGCATTCCTCTTCTTGCCCGCCATGCGCCCTCTCTTGCTGCTATGCG 60

Db 1 ATGAACTGGTATACCTTGTCTTGCGATGGCCCTCTCTCTGCGGCGCCCTGAC 60

QY 61 TGTGTCCTGGTGCCTTCAGATGCGACCTGCGACCTTGTGGGCTGTGCGGAGGAG 120

Db 61 TCTGTCTCAGACGCTCCAGTGGAGACTGTGACACTTTGTGGCTGTCTGTAGAGGAA 120

QY 121 TTACTTTCTTGCGCAAGAAGCCAGGCTCAGGGGCTTGCATCACACGATGCTGC 180

Db 121 TTCACCTTTCATGGCCAAAGAAGCCAGGCTCAGGGGACTTGCATCACACATGCTGC 180

QY 181 TGGGGTCCGTGAGACCTGGGAG 204

Db 181 TGGGGCCGCTGCGAGACCTGGGAG 204

RESULT 12

AA60523  
ID AA60523 standard; cDNA; 496 BP.

AC AA60523;

DT 01-JUL-1991 (first entry)

DE Sequence encoding dog beta luteinising hormone (LH).

KM Contraceptive; fertility control; vaccine; reproductive hormone; ss.

OS Dog.

FN Key Location/Qualifiers

FT CDS 1..54

FT mat\_peptide 55..420

FT polyA\_signal 457..462

FT polyA\_site 496

PN WO8607383-A.

PD 18-DEC-1986.

PF 04-JUN-1986; 86WO-US01226.

PR 18-JUL-1985; 85US-0756847.

PR 04-JUN-1985; 85US-0741168.

PA (BIOT-) BIOTECHN RES PARTN.

PI Talmadge KD, Fiddes JC;

DR WPI: 1986-346608/52.  
P-PSDB: AAP60601.





CC tissue or blood. The method is used for the production of a polymeric  
 CC glycoprotein. The present sequence represents the goldfish GTH  
 CC (gonadotropin) beta1 subunit. DNA encoding GTH is used in an example  
 CC illustrating the method of the invention.

SO Sequence 535 BP; 135 A; 141 C; 113 G; 146 T; 0 other;

Query Match 14.6%; Score 56.8; DB 22; Length 535;  
 Best Local Similarity 59.1%; Pred. No. 1.2e-06;  
 Matches 97; Conservative 0; Mismatches 67; Indels 0; Gaps 0;

QY 222 CCCCTATATTGAAGCCATATGAGTCTGTACCTACACAGCAACAAGGTGACTGT 281  
 DB 223 CCCATTTCCACTGTCTACCAACATGTGTCACTTACCGGACGTCGCTACGAGACTGT 282  
 QY 282 CAAGCTGCCCACTGTGCCCCGGAGTGCACCTCTTACACCTATCCCTGGCCATCCG 341  
 DB 283 CCGCTTGCCAGAGCTGCTCTCCAGGGGTGAGCCCCACATCATCCCTGTGGCTCTCAG 342  
 QY 342 CTGTGACTGCGGAGCCGTCTCCACTGCCACCACGAGTGTGACA 385  
 DB 343 CTGGAAGTGCAGCGCTGTGCACTATGACACATCTGACTGTACGA 386

RESULT 15  
 AA16195  
 ID AA16195 standard; DNA: 5651 BP.

AC AA16195;

DT 29-JAN-2002 (first entry)

DE Human FSH beta encoding plasmid pBYDH1022 SEQ ID NO 6.

KW Human: FSH alpha; FSH beta; follicle stimulating hormone; glycosylation;  
 antiinfertility; cyclic; circular; ds.

OS Chimeric - Homo sapiens.  
 OS Chimeric - Cytomegalovirus.  
 OS Synthetic.

FT Key Location/Qualifiers  
 FT CDS 1231..1620  
 FT /tag= a  
 FT /product= "FSH beta"  
 FT sig\_peptide 1231..1284  
 FT /tag= b  
 FT mat\_peptide 1285..1617  
 FT /tag= c  
 FT /product= "FSH beta"

PN WO200158493-A1.

PD 16-AUG-2001.

PF 09-FEB-2001; 2001WO-DK00090.

PR 11-FEB-2000; 2000DK-0000220.

PR 14-JUL-2000; 2000DK-0001092.

PA (MAXY-) MAXYGEN APS.

PI Schambye HT, Andersen KV, Van Den Hazel B, Christiansen J;  
 PI Jeppesen CB;

DR WPI; 2001-607186/69.

PT New polypeptide conjugate with follicle stimulating hormone (FSH)  
 PT activity, used to treat infertility, comprises polypeptide having  
 PT modified FSH alpha and beta subunits with attachment group for  
 PT non-polypeptide moiety -

PE Example 1; Page 77-79; 88pp; English.

XX The invention relates to new polypeptides and polypeptide conjugates  
 CC exhibiting follicle stimulating hormone (FSH) activity. FSH is a dimeric  
 CC hormone comprising of an alpha (AAM51709) and beta (AAM51711) subunit.  
 CC The invention relates to a heterodimeric FSH conjugate comprising, a  
 CC dimeric polypeptide having FSH alpha (AAM51733-AAM51800,  
 CC AAM51442-AAM51449) and beta (AAM52001-AAM52104) subunits, where at least  
 CC one subunit differs from corresponding wild-type subunit in that an  
 CC amino acid residue containing an attachment group for a non-polypeptide  
 CC molecule has been introduced or removed, especially where at least one of  
 CC the FSH-alpha and FSH-beta subunits comprises at least one introduced  
 CC N- or O-glycosylation site at its N-terminal and the glycosylation site  
 CC being glycosylated. The polypeptides have antiinfertility activity. The  
 CC polypeptides have increased functional in vivo half life and/or serum  
 CC half life as compared to human FSH, replenishing insufficient endogenous  
 CC FSH production in a patient. The present sequence is that of a plasmid  
 CC for expression of human FSH beta.  
 CC Note: The present sequence differs from that given as the full length FSH  
 CC beta in SEQ ID NO 3 (AAM51711) as there is a Lys to Glu mutation at  
 CC position 2 of the native signal sequence.

SO Sequence 5651 BP; 1315 A; 1493 C; 1439 G; 1404 T; 0 other;

Query Match 14.6%; Score 56.8; DB 22; Length 5651;  
 Best Local Similarity 64.4%; Pred. No. 2.5e-06;  
 Matches 85; Conservative 0; Mismatches 47; Indels 0; Gaps 0;

QY 249 CTGTACCTACAGGAGCAACAGAGTGAAGTGCAGCTGCGCACTGTGCCCCGGAGT 308  
 DB 1434 CTGCACCTTCAAGGAGGTGCTGTACGAGAGCGTCCGGTCCCGGTCGCCACCAACGCG 1493  
 QY 309 CGACCCCTTCTACACCTATCCCGTGGCCATCCGCTGTGACTGCGGAGCCGTCTCACTGC 368  
 DB 1494 CGACAGCCTTACACCTACACCGCGTGGCACCAGTGCACATGGGCAAGTGCAGACGCA 1553  
 QY 369 CACCACGGAGTGC 380  
 DB 1554 CAGCACCAGACTG 1565

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